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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/532,293

12/20/2005

Robert Heimbach

P05,0152

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7590

03/09/2009

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EXAMINER

NAM, JUNG HUN

ART UNIT

PAPER NUMBER

2854

MAIL DATE

DELIVERY MODE

03/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/532,293 | Applicant(s) HEIMBACH ET AL. | |
| | Examiner JUNG H. NAM | Art Unit 2854 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 50-100 is/are pending in the application.
- 4a) Of the above claim(s) 73-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 50-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 50, 51, 72, and 100 in the reply filed on 12/09/08 is acknowledged. Upon reconsideration, the restriction requirement dated 10-30-2008 is withdrawn.

Applicant's election without traverse of Species I, claims 50-71, 72, 99, and 100 in the reply filed on 7/14/08 is acknowledged. Upon careful review of the elected claims, it is determined that claims 99 and 100 do not read on the elected Species I. Specifically, determining a point in time that is independent of a path does not belong in the subject matter covered by Species I. Accordingly, Claims 99, and 100 are withdrawn from further consideration because they contain subject matter that is not covered by the elected Species I.

Claim Objections

Claim 50 is objected to because of the following informalities: In line 11, it is not clear how depending on a transport path, a point in time is established where a signal or actuation occurs.

Claim 52 is objected to because of the following informalities: In line 2, the phrase that reads "desired point in time determines the point in time" should read "desired point in time is a point in time."

Claim 54 is objected to because of the following informalities: In line 2, "the sensor" lacks antecedent basis as claim 50 cites "sensor signal."

Claim 60 is objected to because of the following informalities: In line 2, it is not defined what is being calculated.

Claim 64 is objected to because of the following informalities: In line 2, it is not clear whether "program element" is a computer program element or something else.

Claim 70 is objected to because of the following informalities: It is not clear what an interrupt signal is.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 50-72 are rejected under 35 U.S.C. 102(b) as being anticipated by Soler et al US Patent No. 5,489,969.

In re claims 50, and 72, Soler discloses

a device and method for control of an electrophotographic printer or copier, comprising the steps of:

determining information that refer to a single sheet from print data supplied to the printer or copier **(image files which correspond to the print jobs is stored in memory 61, fig. 5, col 8 lines 33-48);**

dependent on said information, determining a transport path of the single sheet through the printer or copier to generate at least one print image on at least one side of the sheet **(Depending on duplex or simplex mode, path that the sheet takes is changed, fig. 10, col 10 lines 31-36);**

providing a system time of the printer or copier that is the same for at least first and second control units of the printer or copier **(plural and interconnecting processors are provided in figs 5-7, in order for the system to function properly, same time must be provided for the processors, col 9 lines 15-45, col 13 lines 1-50);** and

establishing at least one desired point in time at or until which at least one sensor signal is expected or at least one actuator is activated dependent on the transport path, said desired point in time referring to said system time of the printer or copier **(If sheet is duplex, gate is actuated to invert the sheet, fig. 10, col 10 lines 47-54).**

In re claim 51, Soler discloses wherein the system time is predetermined by a timer with help of a counter that counts a clock signal with a constant frequency **(a sync signal at regular interval is used to determine among other things, a time when a sheet should be fed, col 13 lines 1-16).**

In re claim 52, Soler discloses wherein the desired point in time determines the point in time at which an edge of the single sheet should arrive at the sensor.

In re claim 53, Soler discloses wherein the sensor comprises a light barrier or a swing arm switch by which a sensor signal is output upon arrival of a sheet edge **(236, fig. 11, col 13 lines 36-39)**.

In re claim 54, Soler discloses wherein the sensor comprises a feedback device of an actuator by which a sensor signal is output upon reaching a predetermined actuator position **(fig. 11, col 13 lines 36-39)**.

In re claim 55, Soler discloses wherein the desired point in time determines a point in time at which the actuator is activated by a control unit of the printer or copier **(Actuator would have to be activated at a desired time for duplex sheet to enter reversing path, col 10 lines 47-54)**.

In re claim 56, Soler discloses wherein the actuator comprises a step motor or a valve **(Stepper motor I/O controller is used with signature booklet maker (SBM) for controlling operating of a sheet rotator, col 9 lines 46-56)**.

In re claim 57, Soler discloses wherein a plurality of sensors and a plurality of actuators are provided in the printer or copier, a first part of the sensors or actuators are

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connected with the first control unit and a second part of the sensors or actuators are connected with the second control unit **(plurality of input/output printed wiring boards 138 (PWB) are provided where DIO#1 is connected to marking engine 132 PHN core 134 and finisher core 136, fig. 8, col 9 lines 35-46).**

In re claim 58, Soler discloses wherein the control units have a same time normal **(Control units needs to have same time in order to function properly).**

In re claim 59, Soler discloses wherein a synchronization signal via which internal time control units of the control units are synchronized is supplied to the control units **(sync signal is provided to be used among other things, a point in time a sheet is fed, col 13 lines 2-6).**

In re claim 60, Soler discloses wherein a sensor calculation process is associated with the sensor or an actuator calculation process is associated with the actuator in the control units **(It is inherent that sensor calculation process is associated with the sensor).**

In re claim 61, Soler discloses wherein at least two sensors and at least two actuators are provided, whereby a sensor calculation process is associated in the control unit with each sensor for monitoring and evaluation of the sensors, and an actuator calculation process is associated in the control unit with each actuator for

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activation of the actuators (**sensors are provided to keep track of the paper and gates are provided for different modes, col 11 lines 8-14**).

In re claim 62, Soler discloses wherein a time control calculation process is provided in the control unit via which the desired points in time are compared with a real point in time, and via which a signal is output upon reaching or exceeding the desired point in time (**Upon power up, various desired times (t1-t4) are generated at step 326, fig. 13, col 13 lines 17-39**).

In re claim 63, Soler discloses wherein at least two desired points in time are compared with the real point in time upon implementation of the time control calculation process (**Upon power up, various desired times (t1-t4) are generated at step 326, fig. 13, col 13 lines 17-39**).

In re claim 64, Soler discloses wherein a same program element is respectively invoked and executed as a separate calculation process for monitoring or for evaluation of at least two sensor signals, the program elements being invoked or executed with different initial values or different parameters (**various sensor signals are inputted to controllers 138 and monitored via controller 54, and program controls in response to the input signals, fig. 8, col 8 lines 27-63, col 9 lines 35-45, lines 56-67**).

In re claim 65, Soler discloses wherein the calculation processes are executed in parallel by at least one of the control units (**controller 54 is able to handle concurrent operations in the printing system, fig. 2, col 8 lines 27-63**).

In re claim 66, Soler discloses wherein the calculation processes are executed by a controller as tasks in a multitasking operation (**controller 54 is able to handle concurrent operations in the printing system as the printer simultaneously scans originals and keeps track of location of copies and movements of gates and handles the finisher, col 7 line 6 to col 8 line 63**)

In re claim 67, Soler discloses wherein a timeslot is associated with each calculation process, the calculation processes being executed by a controller in succession in the timeslots (**controller 54 is able to handle subsequent or interactive processes, fig. 2, col 7 line 6 to col 8 line 63**).

In re claim 68, Soler discloses wherein an operating system of a controller controls execution of the calculation processes (**col 9 lines 57-67**).

In re claim 69, Soler discloses wherein a plurality of desired points in time are stored in a storage of a time controller and the desired points in time are compared by the time controller with a real point in time, a signal being output by the time controller

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upon reaching or exceeding at least one desired point in time (**Upon power up, various desired times (t1-t4) are generated at step 326, fig. 13, col 13 lines 17-39**)..

In re claim 70, Soler discloses wherein the signal comprises an interrupt signal (signals will be associated with the time periods t1-t4 to send feedback of the location of the paper, col 13 lines 17-39) .

In re claim 71, Soler discloses wherein the desired points in time are sorted in the storage according to their temporal sequence, only temporally next desired points in time being compared with the real point in time (**Times t1-t4 are corresponding to the location of the path the sheet takes , col 13 lines 17-58**).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNG H. NAM whose telephone number is (571)270-5285. The examiner can normally be reached on Monday to Friday 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jung H Nam/
Examiner, Art Unit 2854

/Ren L Yan/
Primary Examiner, Art Unit 2854